

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 9-18 are now in the application. Claims 1-8 were previously canceled. Claim 9 has been amended. Claims 17 and 18 have been added.

Support for the added claims 17 and 18, namely, the comparative language introducing the relative strengths of the novel alloy and steel, is found on pages 5 and 6 of the specification. Particular reference is had to Table 1 on page 6 of the translated specification. There, example 1 refers to the invention and example 5 refers to hardened steel. The torsional strength of the two examples was found to be equal at 2300 N/mm² within the measurement parameters. The qualifier "substantially" in the claims allows for certain deviations, but it excludes the quite divergent strengths of examples 2-4.

The primary concept underlying the instantly claimed invention is as follows: in most compositions, hard metal exhibits considerably weaker behavior than steel in terms of torsion resistance. That is, tools that are configured for torsion loading are formed of steel.

Reference is had, in this context, to the reference Holland-Letz (US 2004/0139829 A1), of record, which shows screwdriver bits that are formed with a head of hard metal and a drive shaft of steel. A screwdriver, of course, is a prime example of a tool that is subjected to torsion loads. Only the head, i.e., the tip, is subjected to wear

(e.g., when the tip slips out of the screw-head grooves and skips about the groove cross without driving the screw).

This brings us to the art rejection, in which claims 9-10 were rejected as being obvious under 35 U.S.C. § 103 over Ederyd et al. (US 5,619,000, "Ederyd") and over Siracki et al. (GB 2,273,301, "Siracki") and claims 9-10 and 12-14 were rejected as being obvious over Smith et al. (US 6,790,252 B2, "Smith"). We respectfully traverse.

The various prior art documents do indeed show certain hard metal alloys with compositions that partly overlap the composition ranges of the claims. The straightforward comparison between the prior art compositions and the claimed compositions, however, misses an important point. Here, we deal with hard metal alloys that are formed into components (e.g., screwdriver bits) that are highly resistant to torsion.

Ederyd, for example, describes a hard metal alloy that is used in the context of drills, microdrills, and routers for steel plates and the like. Such tools operate at very high speeds and they are primarily subjected to wear. They are subjected to torsional loads to only a minor degree.

Siracki pertains to rotary cone drill bits with hard metal inserts. The inserts are primarily subjected to wear. They are subjected to torsional loads to only a minor degree.

Smith describes a process of manufacturing an alloy by injection molding. The workproducts that are considered by Smith are subjected to abrasion and his objects are not directed to torsionally loaded tools.

The very specifically claimed alloy composition according to the invention is suitable for torsionally loaded components. Here, we produce tools and the like that have a torsion strength which is similar to that of steel. We provide for screwdriver bits and like products that can be formed, *in toto*, of the claimed alloy. The criticality is corroborated in the specification, for example, in the examples whose parameters are listed in Table 1.

Applicants have noted that the Examiner apparently compared only the compositions of the claims with those of the prior art disclosures. The limitation of claim 9, for example, in which the alloy is formed into a component that is resistant to torsional loads has not been given any patentable weight. As noted above, however, this feature lies at the heart of the invention. The feature has therefore been further emphasized by referring to the torsional strength in the preamble of claim 9 and reciting the comparative torsional strength in claims 17 and 18. The Examiner is respectfully requested to give proper consideration to these claimed features.

Claims 12 and 13, for example, explicitly deal with screwdriver bits. The references Ederyd, Smith, and Siracki do not deal with screwdriver bits, as outlined above. The alloy compositions of the references – except, possibly, for the small overlap whose criticality was only recognized by applicants – cannot be used for screwdriver bits. More importantly, even, each of the listed references deals with abrasion resistance

and with tools that are maximized in that regard. As such, the references teach away from utilizing their respective alloys for screwdriver bits. As outlined above, those of ordinary skill in the art would understand that hard metal alloys are suitable for use in wear-resistant components but not in torsion-resistant components. This generally accepted understanding in the pertinent art is further emphasized by Holland-Letz, see above.

In summary, none of the references, whether taken alone or in any combination, either show or suggest the features of the independent claims 9 and 14, nor of the dependent claims.

The indicated allowability of claims 11 and 15, as well as the allowance of claim 16, have been appreciatively noted.

In view of the foregoing, reconsideration and allowance of claims 12-18 are solicited.

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